

# Rajiv Gandhi University of Health Sciences, Karnataka

## II Year B.Pharm Degree Examination – JAN-2019

**Time: Three Hours****Max. Marks: 80 Marks**

### APPLIED BIOCHEMISTRY (RS - 2)

### Q.P. CODE: 1959

Your answers should be specific to the questions asked  
Draw neat labeled diagrams wherever necessary

**LONG ESSAYS (Answer any Two)****2 x 10 = 20 Marks**

1. What are enzymes? Describe IUB Nomenclature and Classification of enzymes with examples and describe two models depicting enzyme activity.
2. Describe the reactions involved in citric acid cycle and its bioenergetics.
3. List out the five steps involved in the biosynthesis of cholesterol and describe the reactions leading to formation of active isoprenoid units.

**SHORT ESSAYS (Answer any Eight)****8 x 5 = 40 Marks**

4. Describe the role of glutamate dehydrogenase in amino acids metabolism.
5. What is replication bubble? Explain its formation and functioning.
6. Describe the role of temperature and pH on enzyme activity.
7. Outline and explain the oxidative phase of Pentose Phosphate Pathway.
8. Describe biochemical function of folic acid.
9. Name the cytochromes and describe their role in Electron Transport Chain.
10. Describe conversion of inosine mono phosphate to form major purine nucleotides.
11. Write a note on fatty acid synthase complex.
12. Describe the reactions involved in the formation of creatine/creatinine.
13. List out the kidney function tests and describe any one.

**SHORT ANSWERS****10 x 2 = 20 Marks**

14. Name two deoxyribonucleotides and write the structure of any one.
15. What is Genetic code? Mention two salient features of the same.
16. Define co-enzyme and give one example.
17. What are essential amino acids? Give an example.
18. Write the chemical structure of pyridoxine and mention one biochemical function.
19. What is tRNA? What is its function in the body?
20. What do you mean by nitrogen balance?
21. Define gluconeogenesis and give one example.
22. Passive transport across cell membrane
23. Name two energy rich compounds and write the structure of any one.

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